

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0123285; AI149685; PER20070001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** Wastewater Treatment Utilities, Inc.
Carriagewood Estates Wastewater Treatment System
17188 Airline Hwy, Suite M-157
Prairieville, LA 70769
- II. PREPARED BY:** Angela Marse
- DATE PREPARED:** June 10, 2009
- III. PERMIT ACTION:** Issue LPDES permit LA0123285, AI 149685; PER20070001
- LPDES application received: 8/30/2007
- LPDES permit issued: none issued

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving Carriagewood Estates Subdivision.
- B. The facility is located on Vignes Road, approximately 2 miles from the intersection of Hoo Shoo Too & Elliot Road in Baton Rouge, East Baton Rouge Parish.
- C. The treatment facility consists of extended aeration treatment plant. Disinfection is by chlorination.
- D. Outfall 001

Discharge Location: Latitude 30° 22' 35" North
Longitude 90° 58' 52" West

Description: treated sanitary wastewater

Expected Flow: 0.1 MGD

Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plan by the Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

Type of Flow Measurement which the facility is required to use: Continuous Recorder

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V. RECEIVING WATERS:

The discharge is into a parish drainage ditch, thence into the Western Branch of Clay Cut Bayou, thence into the Amite River in segment 040302 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040302 of the Lake Ponchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 040302	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040302 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040302 of the Lake Pontchartrain Basin is on the 2006 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury and fecal coliform. To date no TMDLs have been completed for this waterbody. Suspected causes of impairment are addressed below.

Mercury

The source of mercury has been identified as atmospheric deposition. The discharge is not directly into the mercury impaired waterbody and the facility will serve residential customers in the nearby area. Therefore, no limit or mercury prevention program plan has been included in the draft permit. Should the TMDL for mercury determine a mercury effluent limitation is necessary, a reopener clause has been included in the draft permit.

Pathogen Indicators

Monitoring for fecal coliform colonies is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against the development of pathogenic organisms in the receiving waterbodies, fecal coliform limits have been established in the permit. These limits are based on State standards for primary contact recreation.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040302 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the *West Indian Manatee*, the *Gulf Sturgeon*, and

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the *Alabama Heelsplitter*, which are listed as threatened/endangered species. This draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the *West Indian Manatee*, the *Gulf Sturgeon*, and the *Alabama Heelsplitter* since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from a new facility. In accordance with the 'Memorandum of Understanding for the Protection of Historic Places in Louisiana Regarding LPDES Permits', consultation with the Louisiana State Historic Preservation Officer (SHPO) is required. The response dated October 12, 2007 indicated no known archaeological sites or historic properties will be affected by the facility.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:**Final Effluent Limits:****OUTFALL 001**

According to LDEQ's pre-TMDL permitting strategy, new sanitary discharges should be evaluated using an appropriate water quality simulation model or permitted in a manner so as to prevent any impact on the impaired stream. In this case, the waterbody is impaired for fecal coliform and mercury. Fecal coliform is limited at the primary contact recreation standard year round. Because of the nature of the discharge the facility is not a suspected source of mercury.

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Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	8	10 mg/l	15 mg/l	Areawide Policy for Lake Pontchartrain Basin Segment 0403
TSS	13	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-nitrogen	4	5 mg/l	10 mg/l	Areawide Policy for Lake Pontchartrain Basin Segment 0403

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0123285: Issued: none issued

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XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

This is a new facility. No inspections have been performed for this facility.

B) Compliance and/or Administrative Orders**LDEQ Issuance:**

Docket #: WE-CN-09-0306

Date Issued: January 6, 2010

Findings of Fact:

1. The facility has been discharging without a permit

Order:

1. must comply with the interim limits that are established in the compliance order until a final permit has been obtained
2. properly maintain facility
3. adhere to the schedule of activities associated with it sewer rehabilitation project

C) DMR Review

This is a new facility; no DMRs have been submitted for this facility

XII. ADDITIONAL INFORMATION:

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.1 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.1 \text{ MGD} \times 10 \text{ mg/l} = 8 \text{ lb/day}$$

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At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

After the first year of weekly testing, the permittee may request a monitoring frequency reduction. The Water Permits Division will review the company and facility compliance history and make a determination to grant the request. If granted, the monitoring frequency shall be 2/month.

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Wastewater Treatment Utilities, Carriagewood Estates Wastewater Treatment System, 8/30/2007.